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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,837	04/27/2001	Rudy Vianna	3650-013US	8709

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EXAMINER	
DINH, TUAN T	

ART UNIT	PAPER NUMBER
2827	

DATE MAILED: 07/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/842,837	Applicant(s) VIANNA ET AL.	
	Examiner Tuan T Dinh	Art Unit 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-3,6-12 and 14 is/are rejected.

7)☒ Claim(s) 4,5,13 and 15 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 27 April 2001 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show "***a plurality of third connectors...third modules, claim 6, lines 3-4***" as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 1-15 are objected to because of the following informalities:

Claim 1, line 3, "said device" should be –said device plane—for proper antecedent basis.

Claim 1, line 8, "said device" should be –said device plane—for proper antecedent basis.

Claim 1, lines 8-9, "said communication device" should be –said communication device plane—for proper antecedent basis.

Claim 1, lines 15-16, "said communication device" should be –said communication device plane—for proper antecedent basis.

Claim 2, line 3, "said device" should be –said device plane—for proper antecedent basis.

Claim 4, line 3, "said communication device" should be –said communication device plane—for proper antecedent basis.

Claim 5, line 2, "the device" should be –the device plane—for proper antecedent basis.

Claim 8, line 2, "the device" should be –the device plane—for proper antecedent basis.

Claims 2-15, line 1, change "A plane" to –The plane—for proper antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 6-12, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yen (U.S. Patent 5,852,725).

As to claim 1, Yen discloses a communication device plane (4, column 2, line 55) having a high-speed bus for interconnecting a plurality of modules (3, column 2, lines 39-40), said device plane as shown in figures 3-4 comprising:

a plurality of first connectors (42, column 2, line 57) for receiving a plurality of first modules (3), said plurality of first connectors (42) being arranged in parallel with each other and longitudinally with respect to the length of said device plane (4), and being mounted to said communication device plane **substantially centrally** thereon, each of said first connectors (42) extending so as to **substantially cover** the length of said device;

a plurality of second connectors (41, and a bottom group of PCI bus slots 43, column 2, lines 57-58) for receiving a plurality of second modules (3), said second connectors (41 and 43) being substantially parallel to said first connectors and being mounted to said communication device plane in groups on both sides (see figure 4) of

said plurality of first connectors (42) such that two of said groups on each side may be disposed longitudinally with respect to each other.

As to claim 3, Yen discloses said plurality of second connectors (41, 43) is arranged in such a manner as to allow for maximum module densities.

As to claim 6, Yen further comprising: a plurality of third connectors (a top group connectors 43) for receiving a plurality of third modules (3) in figure 4, said plurality of third connectors being arranged such that they are linear with said first modules (3).

As to claim 7, Yen discloses said third connectors (the top group connectors 43) are disposed on either side said first modules (3).

As to claim 8, Yen discloses the length of the device plane (4) is slightly longer than the length of one of said first modules (3).

As to claims 9-11, Yen discloses one or more of said first, second, and third modules comprise a switch module, an access and processing module, and an additional function module, respectively (because the computer card 3 including an 80486 Pentium or other CPU having functions to connect on the ISA, EISA, and PCI bus slots).

As to claims 12 and 14, Yen discloses said plane is a single sided backplane (4).

5. Claims 1-3, 6-12, and 14 are rejected under 35 U.S.C. 102(e) as being anticipated by Harenza et al. (U.S. Patent 6,351,719).

As to claim 1, Harenza discloses a communication device plane (26, column 2, lines 59-60) having a high-speed bus for interconnecting a plurality of modules (10, column 2, lines 50-53), said device plane (26) as shown in figures 1-5 comprising:

a plurality of first connectors (100, see a sketch of a attaching paper) for receiving a plurality of first modules (10), said plurality of first connectors (100) being arranged in parallel with each other and longitudinally with respect to the length of said device plane (26), and being mounted to said communication device plane **substantially centrally** thereon, each of said first connectors (100) extending so as to **substantially cover** the length of said device;

a plurality of second connectors (200, see the sketch of the attaching paper) for receiving a plurality of second modules (10), said second connectors (200) being substantially parallel to said first connectors (100) and being mounted to said communication device plane in groups on both sides (see figure 1) of said plurality of first connectors (100) such that two of said groups on each side may be disposed longitudinally with respect to each other.

As to claim 2, Harenza discloses when said first and second modules (10) are connected thereto, the layout of the modules (10) on said device plane (26) is substantially H-shaped, see figure 1.

As to claim 3, Harenza discloses said plurality of second connectors (200) is arranged in such a manner as to allow for maximum module densities.

As to claim 6, Harenza further comprising: a plurality of third connectors (a another set of connector) for receiving a plurality of third modules (10), said plurality of third connectors being arranged such that they are co-linear with said first modules (10).

As to claim 7, Harenza discloses said third connectors (the top group connectors 43) are disposed on either side said first modules (3).

As to claim 8, Harenza discloses the length of the device plane (26) is slightly longer than the length of one of said first modules (10).

As to claims 9-11, Harenza discloses one or more of said first, second, and third modules (10) comprise a switch module, an access and processing module, and an additional function module, respectively (because module 10 including an ISA and PCI cards connected to bus slots on the plane 26).

As to claims 12 and 14, Harenza discloses said plane (26) is a single sided backplane.

Allowable Subject Matter

6. Claims 2, 4-5, 13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Neither Yen nor combine with other references cited fail to disclose or render obvious in combination of the device plane having the layout of the modules on the device plane is substantially H-shaped, a plurality of second connectors is disposed in a staggered arrangement on the communication device plane, allowing for maximum

densities of alternating modules in a front row and a back row, the length of the device plane is less than twice the length of one of said second modules, and the said plane is a double sided midplane.

7. Claims 4-5, 13, and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Neither Harenza nor combine with other references cited fail to disclose or render obvious in combination of the device plane having a plurality of second connectors is disposed in a staggered arrangement on the communication device plane, allowing for maximum densities of alternating modules in a front row and a back row, the length of the device plane is less than twice the length of one of said second modules, and the said plane is a double sided midplane.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Borchew et al, Zhu, McElroy et al., and Moore et al. disclose related art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T Dinh whose telephone number is 571-272-1929. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kammie Cuneo can be reached on 571-272-1957. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan Dinh
July 08, 2004.

Luan Thai
Primary Examiner 7/10/04